

*SOME REMARKS ON THE FAMILY JASCOPIDAE*  
(HOMOPTERA, AUCHENORRHYNCHA)

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In a recent paper a new family of Homoptera, the Jascopidae, which is claimed by the author to "represent a group of organisms intermediate between the Cercopidae and Cicadellidae", is defined (Hamilton, 1971). This family is based on a single nymph found in Canadian amber of probable Upper Cretaceous age and named *Jascopus notabilis* Hamilton.

Insects belonging to the Cercopoidea and Cicadelloidea have a superficial resemblance but there are several important features, both of a structural and a biological nature, in which they differ. Among the more important of the former are the armature of the hind tibiae, the nature of the tentorium and the venation of the forewings, or tegmina.

The hind tibiae of adult cercopoids have one, or a few, strong spurs and lack spines. The hind tibiae of cicadelloids are usually heavily spined and if spurs also are present then they bear spines at their apices.

In the Cercopoidea, as in the Cicadoidea, the anterior arms of the tentorium are joined to the posterior tentorial bar. The anterior arms in the Cicadelloidea are short and lack any connection with the posterior arms.

In the tegmina of cercopoids Sc is present (though sometimes obscure) as a short, curved vein and M, proximally, usually forms part of the same vein as CuA but never of R. In the tegmen of cicadelloids a separate Sc is lacking and M, except in a few membracids and biturritids, has a common stem with R.

It is evident that the characteristics furnished by the hind tibiae and the tentorium could not occur in a state intermediate between the cercopoid and cicadelloid condition but this does not apply to the venation of the tegmina, for a pattern of venation could be devised which might be regarded as ancestral to those of both superfamilies.

Unfortunately, the venation of the tegmina of the Jascopidae is, and must remain, unknown. It needs, however, to be mentioned that evidence based on a study of venation suggests that by as early as Permian times the Cercopoidea and the Cicadelloidea were already established as separate distinctive groups (Evans, 1964).

Hamilton's reasons for regarding the Jascopidae as intermediate between these two superfamilies are based on evidence provided by the head, legs, and abdomen. In respect to the head, his statement that all Cicadellidae lack an epistomal suture is incorrect for such a line of weakness is retained, not only in the adults of a few species, but also in their nymphs (e.g. *Tartessus* spp.). The armature of spines on the femora, and on the sides and apices of the hind tibiae, though sometimes helpful in determining subfamily affinities, is of such a varied nature as to be unlikely to provide characters on which deductions of remote evolutionary significance can be based. Abdominal shape, likewise, can be of little, if any, diagnostic importance.

Although the apparent lack of spines on the hind tibiae of *Jascopus notabilis* Hamilton, and the presence of two rows of apical spines, may be characteristics without special phylogenetic significance, the length of the hind tibiae of this insect and the nature of the spinulation of its middle legs suggest to the present author that, without doubt, it belongs to the family Cicadellidae of the superfamily Cicadelloidea.

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